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NEWS

Grucci Fireworks Probe

Suffolk seeks
source of chemical
in tainted
groundwater

by **DAN FAGIN**
Staff Writer

Fireworks by Grucci is being investigated by Suffolk County as a possible source of a toxic chemical, perchlorate, recently found in 11 drinking-water wells in a Yaphank neighborhood -- including three wells that registered above the state's safety guideline.

The county health department late last week conducted an unannounced inspection of the famous fireworks facility on Horseblock Road and took soil samples to see if potassium perchlorate, a crucial ingredient of some types of pyrotechnics, has somehow leaked out of fireworks storage bunkers and reached groundwater beneath the plant. Results of the tests are not expected for several weeks.

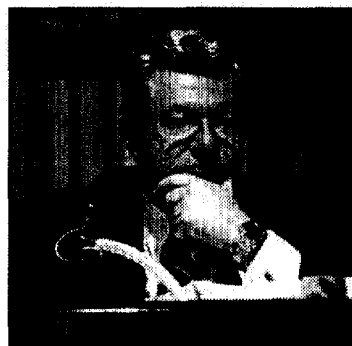
If it does reach groundwater, potassium perchlorate breaks down into perchlorate, a chemical that moves readily through groundwater and can last for years without

WATER POLLUTION



Newsday Photo
Daniel Goodrich

Katherine Fritz and her 19-month old daughter Isabel, live in an area with a high concentration of perchlorate in well water.



Newsday File Photo

Brookhaven Town Supervisor Felix Grucci shown at a town meeting.

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degrading further. The U.S. Environmental Protection Agency says ingesting perchlorate can impair the production of growth-regulating hormones by the thyroid gland, but scientists are uncertain whether only very high doses of the chemical pose a significant health risk.

Company President Felix Grucci Jr., who is also supervisor of Brookhaven Town and the Republican challenger to U.S. Rep. Michael Forbes (D-Quogue) in the November election, said his family's firm has taken pains to handle potassium perchlorate safely. "I can assure you that this chemical is not coming from our facility," he said. "I am absolutely, 100 percent sure of that."

Perchlorate is only just beginning to be recognized on Long Island and elsewhere in the country as a potentially widespread threat to groundwater supplies. But the little-known chemical is already on the lips of some residents of a tree-lined block of Yaphank Ave. where in recent weeks three households have been told by Suffolk health officials not to drink water from their backyard wells because of perchlorate contamination.

"The whole thing that's making me nuts is that you expect your water to be safe. You take it for granted. Well, I don't take it for granted any more," said Katherine Fritz, who decided to get a blood test for her 18-month-old daughter, Isabel, after receiving a warning letter last month from the health department.

The letter said that a health department test showed Fritz' well contained 24 micrograms of perchlorate per liter of water, which is above New York's guideline of 18 micrograms per liter. The letter also warned that perchlorate can alter the functioning of the thyroid gland, noting that potassium perchlorate until recently was widely used as a medicine to reduce abnormally high thyroid hormone levels.

Last week, as Fritz sat in her living room, her daughter's pediatrician called to say the test showed that Isabel's thyroid was functioning normally. "Oh, Thank God!" she said, after hanging up the phone.

Perchlorate compounds have been used for decades to power some rockets, explosives, fireworks and airbags, and as a trace ingredient of certain fertilizers, but they have only recently been identified as important contaminants of water supplies. The reason is that before mid-1997, when California officials concerned about spills at Los Angeles-area military plants finally developed a test, there was no way to detect perchlorate in aquifers and reservoirs.

Suffolk began looking for perchlorate in late 1998, and so far has found it in about 40 of the county's 500-odd public supply wells, said Paul Ponturo, who supervises the bureau

of drinking water at the county health department. Testing for perchlorate has not yet begun in Nassau County, according to the Nassau health department, because the test for the chemical is new and is not yet required by the state.

So far, concentrations have been low, usually about 3 to 5 micrograms per liter, in most of the wells in Suffolk where perchlorate has been found, Ponturo said. Because those wells tend to be near current or former farms, fertilizers that contain small amounts of perchlorate are thought to be the most likely source of the low-level contamination, he said.

More troubling, Ponturo said, are the two areas -- Yaphank and Westhampton -- where perchlorate, possibly from fireworks, has been found in wells at levels above the state's informal safety guideline of 18 micrograms per liter. New York and the federal government do not yet have a formal safety standard for perchlorate, but have been using California's newly adopted standard of 18 as an interim guideline.

In the Yaphank neighborhood centered on Yaphank Avenue just north of Sunrise Highway, the health department has found perchlorate in 10 of the 20 private wells it has tested and also at a larger well serving a strip shopping center on Horseblock Road. The detection at the shopping center was what prompted the county to test private wells nearby, Ponturo said. The three backyard wells with readings over the safety guideline were all private homes that registered 24, 24, and 26 micrograms per liter, Ponturo said.

In Westhampton, the Suffolk County Water Authority earlier this year sued the county government for allegedly contaminating one of its public-supply wells so severely that it had to be shut down after the well registered 25 parts per billion of perchlorate.

At first, the authority believed the problem was that the well was near the site of an abandoned Bomarc missile silo on Old Country Road in Westhampton. But after learning from the U.S. Air Force that solid-rocket fuel containing perchlorate wasn't used there when the site operated during the 1950s and 1960s, the county health department and the water authority concluded that fireworks confiscated by the Suffolk Police Department were the most likely source of the underground contamination.

For years, Ponturo said, county police would incinerate confiscated fireworks in a pit at a county-owned site near the well, and would then douse the fire with water that then may have percolated down into the aquifer and ultimately contaminated the well with perchlorate. Deputy County Attorney Derek Robinson, who is defending

Suffolk, said that the county is trying to settle the case and that the police now use a method that is environmentally safer.

In Yaphank, the health department's investigation is not as far along as at Westhampton, and Ponturo said it hasn't reached any conclusions about what caused the contamination on Yaphank Avenue.

Besides Grucci, other possibilities include the nearby Brookhaven landfill and fertilizer from farms. In addition, county garage facilities farther north on Yaphank Avenue are thought to be the source of toxic solvents -- not perchlorate -- found last year in wells of several homes on the road, about a mile north of the perchlorate-tainted area.

However, Ponturo noted there are few farms near the wells where perchlorate has been detected, and that perchlorate in fertilizer has so far tended to cause only very low-level detections of the chemical. He also said the Brookhaven landfill lies west of the tainted wells and the county facilities are due north, but groundwater in the area tends to flow from the northwest to southeast. The 88-acre Grucci property is about one mile northwest of the contaminated wells.


"In terms of what we understand to be the overall regional flow direction, the Grucci plant is certainly a possibility," he said.

Yet another possibility is the old Izumi steering wheel factory, which TRW Inc. purchased in 1996 and closed in 1999. But the plant is about a mile northwest of Grucci, and TRW spokesman Gary Klasen said company managers don't believe perchlorate compounds were ever used there to make airbags.

Suffolk tested several drinking water wells at the Grucci plant in 1998 and did not detect perchlorate, but those wells were on the southwestern side of the property and because of the direction of groundwater flow probably wouldn't be affected by a chemical spill on Grucci land, Ponturo said. "It really doesn't prove anything one way or another," he said.

Felix Grucci yesterday disagreed, asserting that the perchlorate would have shown up in the plant's water supply because the main well is "due south of the working buildings." He also noted that the county hasn't sampled the groundwater flowing into Grucci land and can't be sure the perchlorate is not coming from another source.

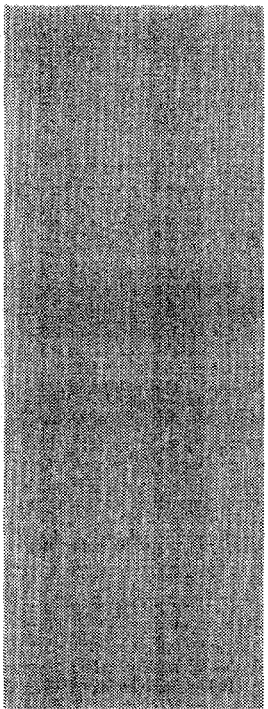
The county health department conducted its unannounced inspection of the Grucci plant Thursday and took soil samples at "areas we have concerns about," said Alex Santino, acting chief of the department's office of pollution



control. He said Suffolk's inspector found no evidence that Grucci was violating county laws that regulate bulk chemical storage.

Phil Grucci, the company's vice president of operations and design, said that except for eight pounds of the chemical kept in a laboratory for research purposes, the only perchlorate currently at the Grucci plant is packed inside finished, imported fireworks stored inside above-ground bunkers. From 1995 to 1998, however, the company used about 4,000 pounds of potassium perchlorate to mix its own flash powder under a contract with the federal Department of Defense to produce training devices that simulate the flash and noise of TOW anti-tank missiles.

"I set up that line, and it's my opinion that based on the way we handled those materials there is no way we caused the suspect perchlorate" in the Yaphank water wells, said Phil Grucci.



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